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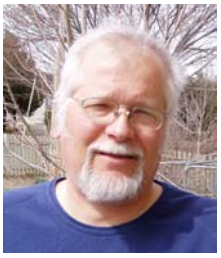

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Plant Disease in Kansas

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HIGHLIGHTS

The newly planted wheat crop could come under pressure from diseases in volunteer wheat. Leaf rust and wheat streak mosaic are widespread in the volunteer crop.

Kansas escapes soybean rust for 2005.

Sorghum and sunflower diseases were below average in 2005.

OUTLOOK

Look for wheat disease in fields planted next to fallow fields with volunteer wheat. Survey has identified several diseases present in the volunteer crop which is abundant because of widespread summer rains.

SORGHUM and SUNFLOWER

During the month of September, sunflower and sorghum fields were surveyed in the northwest quarter of the state. Sorghum disease was confined to a few reports of bacterial streak in Ellis and Cheyenne counties. In sunflower, rust levels were low in many fields north of Goodland and around Saint Francis. Severities were generally below 1% with a few early fields under irrigation with severity near 10%.

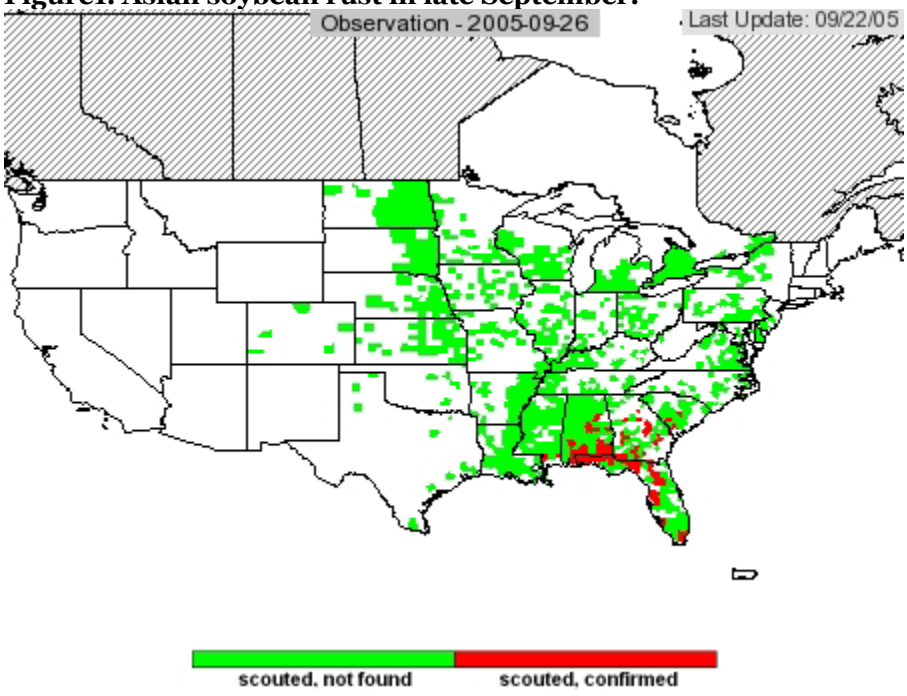
Rhizopus head rot was noted in a few sunflower fields in Rawlins and Cheyenne counties and of concern. Incidence was above 50% in those fields. Generally though, sunflower fields were free of any significant level of disease.

In other parts of the state, sorghum disease followed the same trend. Bacterial stripe was noted in Riley (NE) County but incidence was well below average. The foliar diseases such as sooty stripe and leaf blight were present but below the 5% severity level. In southeast Kansas, sooty stripe was able to infect some fields and reached about 20% severity by maturity. Head smut was found in a field in Riley County. No sorghum ergot was reported in the state this year.

SOYBEAN

Asian soybean rust has not made it to Kansas or neighboring states at the time of this report. The disease over wintered in Florida on Kudzu and infected some areas of the southern United States (see map from USDA).

Figure1. Asian soybean rust in late September.



Much of Kansas soybeans are now mature and shedding leaves. Some have been harvested and a few still are filling. Late soybeans in extreme southeast Kansas could still become affected but are nearing the point where any infection would have minimal influence on yield.

Over time, Kansas may see infection but a lot will depend on the frost line in the Deep South and the over wintering of rust, weather patterns, and the geographic range of the disease over the next few years.

WHEAT

The summer has provided precipitation in many areas of the state and allowed volunteer wheat to grow. The volunteer wheat serves as the bridge between crops for disease to survive and spread.

Survey over the past month has found a large amount of volunteer wheat in the northern half of the state. In those fields, disease can frequently be found. Leaf rust was the most common with reports from Marshall County in northeast Kansas to Rush County in central Kansas and then north to Rawlins County in northwest Kansas. Within, this area volunteer wheat was surveyed. Leaf rust was heaviest in eastern locations within the area but could be found in the western locations with a little work. Wheat streak mosaic was noted along with its vector, the wheat curl mite, in a few fields of the western part of the region surveyed. The warm weather in September should continue to allow populations of wheat curl mite to increase and spread to planted wheat fields in nearby vicinity. Last spring, the west central region of Kansas had an epidemic of wheat steak mosaic because of these similar conditions.

Figure 2. Wheat streak mosaic in Kingman (SC) County.